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10/646,025	08/22/2003	Kuo-cheng Lin	JLNP165	9251

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EXAMINER

VERDIER, CHRISTOPHER M

ART UNIT PAPER NUMBER

3745

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

571

<b>Office Action Summary</b>	<b>Application No.</b> 10/646,025	<b>Applicant(s)</b> LIN ET AL.	
	<b>Examiner</b> Christopher Verdier	<b>Art Unit</b> 3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 3745

Applicants' Amendment dated January 6, 2005 has been carefully considered but is deemed non-persuasive. The previous examiner rejected claims 1-21 under 35 USC 102(b) as being anticipated by Fukuda 6,394,768. However, Fukuda does not contain many of the claim limitations in the dependent claims. Additionally, there is materially better new prior art which was not applied by the previous examiner which appears to be more relevant to the claimed invention. Therefore, the previous Office action is hereby vacated.

The examiner appreciates Applicants' arguments with regard to Fukuda 6,394,768. Applicants have argued that the claims define over Fukuda, because in Fukuda, the raised portion reduces the inner space of the rotor yoke and thus fails to provide additional space for accommodating the permanent magnet and coil of a fan motor. Applicants have further argued that the raised portion recited in the amended claims creates a falling height on the inner side of the closed end of the housing to construct a thin motor structure easily without decreasing the space provided for the permanent magnet and coil of a fan motor. Applicants have further argued that the space created by the raised portion means that more room is available for the magnet and coil, while the raised portion of the rotor yoke disclosed by Fukuda is unable to provide the extra space. The examiner disagrees with these arguments, and respectfully points out that these features (with the exception of the falling height on the inner side of the closed end of the housing) upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). It is the examiner's position that in figure 1b and 3b of Fukuda, the unnumbered raised portion in the

Art Unit: 3745

central portion of the housing 4/24 creates a falling height on the inner side of the closed end of the housing.

### *Specification*

The disclosure is objected to because of the following informalities: Appropriate correction is required.

In paragraph 4, line 2, -- be -- should be inserted after "must".

In paragraph 10, line 2, "are" should be changed to -- is --.

In paragraph 22, the last two lines are non-idiomatic.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, line 3, "its inner side" is indefinite, because it is unclear which element "its inner side" refers to (i.e. the housing, the closed end of the housing, the raised portion, or the central location).

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 3745

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7, 13-14, and 21 (as far as claims 1-5 and 7 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 6-86,523. Note the rotor assembly, comprising a housing 2 having an open end and an opposed closed end, the closed end of the housing being formed with an unnumbered raised portion in its central location to create a falling height (near 4) on its inner side, and a hub mounting 4 on the closed end of the housing and covering the housing except for the raised portion, with a height of the raised portion being substantially the same as a thickness of the hub positioned on the closed end of the housing, with the housing being cup-shaped, and the raised portion being cup-shaped, with the hub being ring-shaped and having an opening (which receives shaft 3), and the formation of the raised portion creating a stepped closed end constituted by an unnumbered top portion, an unnumbered shoulder and an unnumbered periphery portion. The falling height is formed on an inner side of the closed end, and the hub has a radial position section and an axial extended section, with the hub mounting on the cup-shaped housing through the position section covering the periphery portion of the stepped closed end. A distance between the top portion and the periphery portion is substantially the same as a thickness of the position section of the hub. The hub is ring shaped and has an opening (which receives shaft 3) and an unnumbered arc for smoothly guiding airflow passing through the rotor assembly. See the attached translation.

Art Unit: 3745

Claims 1, 3-5, 7, 9-11, 13, and 17-19 (as far as claims 1, 3-5, 7, and 9-11 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi 5,663,604 (figures 3-4). Note the rotor assembly, comprising a housing 142 having an open end and an opposed closed end, the closed end of the housing being formed with a raised portion 146 in its central location to create a falling height (near 150) on its inner side, and a hub mounting 158 on the closed end of the housing and covering the housing except for the raised portion, with the housing being cup-shaped, and the raised portion being cup-shaped, with the hub 158 being ring-shaped and having an opening 152, and the formation of the raised portion creating a stepped closed end (see step 150) constituted by an unnumbered top portion, an unnumbered shoulder and an unnumbered periphery portion. The falling height is formed on an inner side of the closed end, and the hub has a position section 158 and an axial extended section 162, with the hub mounting on the cup-shaped housing through the position section covering the periphery portion of the stepped closed end. The hub is ring shaped and has an opening. The hub is fixed on the periphery portion of the housing through a fastener 162, which is a clasp. Concerning claims 11 and 19, which recite that the hub and fastener are formed by injection molding, these claims are product-by-process claims. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product-by-process claim does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Art Unit: 3745

Claims 1-3, 5-7, 13-15, and 21 (as far as claims 1-3 and 5-7 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by World Order Patent 02/20994 A1 (figure 3). Note the rotor assembly, comprising a housing 88 having an open end and an opposed closed end, the closed end of the housing being formed with a raised portion 90 in its central location to create an unnumbered falling height on its inner side, and a hub mounting 94 on the closed end of the housing and covering the housing except for the raised portion, with a height of the raised portion being substantially the same as a thickness of the hub positioned on the closed end of the housing, with the housing being cup-shaped, with the hub being ring-shaped and having an opening 116, plural apertures 116 in the raised portion, and the formation of the raised portion creating a stepped closed end constituted by an unnumbered top portion, an unnumbered shoulder and an unnumbered periphery portion. The falling height is formed on an inner side of the closed end, and the hub has a radial position section and an axial extended section, with the hub mounting on the cup-shaped housing through the position section covering the periphery portion of the stepped closed end. The hub is ring shaped and has an opening 116 and an unnumbered arc near 94 for smoothly guiding airflow passing through the rotor assembly.

Claims 1-7, 13-15, and 21 (as far as claims 1-7 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Bradbury 6,129,528 (figures 1-2). Note the rotor assembly, comprising a housing 20 having an open end and an opposed closed end, the closed end of the housing being formed with an unnumbered raised portion in its central location to create an unnumbered falling height on its inner side, and a hub mounting 10 on the closed end of the housing and covering the housing except for the raised portion, with a height of the raised

Art Unit: 3745

portion being substantially the same as a thickness of the hub positioned on the closed end of the housing, with the housing being cup-shaped, with the raised portion being cup-shaped, with the hub being ring-shaped and having an unnumbered opening, plural unnumbered apertures in the raised portion, and the formation of the raised portion creating a stepped closed end constituted by an unnumbered top portion, an unnumbered shoulder and an unnumbered periphery portion. The falling height is formed on an inner side of the closed end, and the hub has a radial position section and an axial extended section, with the hub mounting on the cup-shaped housing through the position section covering the periphery portion of the stepped closed end. The hub is ring shaped and has an unnumbered opening and an unnumbered inclined leading edge for smoothly guiding airflow passing through the rotor assembly.

Claims 1-3, 5, 7, 13-14, and 21 (as far as claims 1-3, 5, and 7 are definite and understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Fukuda 6,394,768 (figures 1b and 3b). Note the rotor assembly, comprising a housing 4/24 having an open end and an opposed closed end, the closed end of the housing being formed with an unnumbered raised portion in its central location to create an unnumbered falling height on its inner side, and a hub mounting (unnumbered, but mounting blades 14 and 34) on the closed end of the housing and covering the housing except for the raised portion, with a height of the raised portion being substantially the same as a thickness of the hub positioned on the closed end of the housing, with the housing being cup-shaped, with the hub being ring-shaped and having an opening for receiving shaft 11/31, and the formation of the raised portion creating a stepped closed end constituted by an unnumbered top portion, an unnumbered shoulder and an unnumbered periphery portion. The



Art Unit: 3745

falling height is formed on an inner side of the closed end, and the hub has a radial position section and an axial extended section, with the hub mounting on the cup-shaped housing through the position section covering the periphery portion of the stepped closed end (figure 3b). The hub is ring shaped and has an opening and an unnumbered arc (figure 3b) for smoothly guiding airflow passing through the rotor assembly.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 6-86,523. The Japanese Patent discloses a rotor assembly substantially as claimed as set

Art Unit: 3745

forth above, including the hub 2 being attached to the periphery portion, but does not disclose that the hub is fixed on the periphery portion by way of adhesion.

Official Notice is taken that adhesion (gluing) is a conventional and well-known manner of joining two objects together, for the purpose of ensuring a strong connection between the objects.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the rotor assembly of Japanese Patent 6-86,523 such that the hub is fixed on the periphery portion by way of adhesion, for the purpose of ensuring a strong connection between the hub and the periphery portion.

Claims 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 6-86,523 in view of Kershaw 5,944,497. The Japanese Patent discloses a rotor assembly substantially as claimed as set forth above, including a housing 2, but does not disclose that the housing is made of metal.

Kershaw (figure 1) shows a fan having a cup-shaped housing 18 made of steel, which is a metal, for the purpose of providing a durable rotor for a motor.

Art Unit: 3745

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to form the rotor assembly of the Japanese Patent such that the housing 2 is made of steel, as taught by Kershaw, for the purpose of providing a durable rotor for a motor.

*Prior Art*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

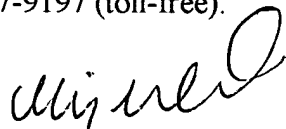
Muller is cited to show a fan with a hub and cup-shaped housing attached by clasps.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Verdier whose telephone number is (571) 272-4824. The examiner can normally be reached on Monday-Friday from 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward K. Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C.V.  
March 15, 2005

  
Christopher Verdier  
Primary Examiner  
Art Unit 3745